

CODEX STANDARD FOR CANNED ASPARAGUS¹**CODEX STAN 56-1981****1. DESCRIPTION****1.1 Product Definition**

Canned asparagus is the product (a) prepared from the edible portion of stalks of varieties of the asparagus plant conforming to the characteristics of *asparagus officinalis* L., and may be peeled or unpeeled; (b) packed with water or other suitable liquid medium and may contain other ingredients appropriate to the product; and (c) processed by heat in an appropriate manner, before or after being sealed in a container, so as to prevent spoilage.

1.2 Styles

1.2.1 **Long Shoots or Long Spears** - consist of the head and adjoining portion of the stalk not more than 18 cm, but less than 15 cm in length.

1.2.2 **Shoots or Spears** - consist of the head and adjoining portion of the stalk less than 15 cm, but not less than 10.5 cm in length.

1.2.3 **Tips or Points** - consist of the head and adjoining portion of the stalk less than 10.5 cm, but not less than 4 cm in length.

1.2.4 **Cuts and Heads or Cut Spears** - consist of stalks cut transversely into pieces with and without heads, not more than 6 cm, but not less than 2 cm in length. At least 20%, by count, of pieces with heads must be present, except that when the spears are cut into pieces of 3 cm or less in length, at least 10%, by count, of pieces with heads must be present.

1.2.5 **Cuts** - consist of portions of stalks cut transversely into pieces not more than 6 cm in length. Pieces with heads may be present.

1.3 Other Styles

Any other presentation of the product shall be permitted provided that the product:

- (a) is sufficiently distinctive from other forms of presentation laid down in this standard;
- (b) meets all relevant requirements of this standard, including requirements relating to limitations on defects, drained weight, and any other requirements in this standard which are applicable to that style in the standard which most closely resembles the style or styles intended to be provided for under this provision.
- (c) is adequately described on the label to avoid confusing or misleading the consumer.

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Formerly CAC/RS 56-1972 as amended.

1.4 Allowances for Styles

1.4.1 The length requirements for the styles listed in sub-section 1.2 will be considered to be met when:

- (a) the predominant length of the units in the sample falls within the designated style classification; and
- (b) the length of the units is reasonably uniform.

1.4.2 "Reasonably uniform", based on sample average, means for:

- (i) **Long Shoots; Shoots; Tips** - at least 75%, by count, of the units are within ± 1 cm of the predominant length and at least 95%, by count, of the units are within ± 2 cm of the predominant length;
- (ii) **Cuts and heads; Cuts** - at least 75%, by count, of the units are within ± 1 cm of the predominant length and at least 90%, by count, of the units are within ± 2 cm of the predominant length.

1.5 Colour Types

1.5.1 **White** - units are white, cream or yellowish white; not more than 20%, by count, of the units may possess blue, green, light green, or yellowish green tips.

1.5.2 **White and Blue Tipped; White and Green Tipped** - "Long Shoots", "Shoots" and "Tips" which are white, cream, or yellowish-white may have blue, green, light green or yellowish-green heads and adjacent areas but not more than 25%, by count, of the units may have such colour that extends more than one-half the length of the unit.

1.5.3 **Green** - units are green, light green, or yellowish-green; not more than 20%, by count, of the units may possess a white, cream, or yellowish-white colour of the bottom portion of the stalk, but such colour shall not extend more than one-half of the length of the unit.

1.5.4 **Mixed** - consists of a mixture of white, cream, yellowish-white, blue, green, light green, or yellowish-green units.

1.6 Designations in Accordance with Size

Long Shoots; Shoots; Tips - may be designated according to size in the following manner:

Single Sizes	Peeled Asparagus	Unpeeled Asparagus
"Small"	up to 8 mm, inclusive	up to 10 mm, inclusive

"Medium"	over 8 mm, and up to 13 mm, inclusive	over 10 mm, and up to 15 mm, inclusive
"Large"	over 13 mm, and up to 18 mm inclusive	over 15 mm, and up to 20 mm, inclusive
"Extra large"	over 18 mm	over 20 mm

Blend of sizes or Assorted Sizes - a mixture of two or more single sizes.

1.6.1 Definition of "diameter"

The diameter of a long shoot, shoot, or tip is the maximum diameter at the thickest part of the unit, measured at right angles to the longitudinal axis of the unit.

1.6.2 Compliance with "single size" designations

1.6.2.1 When the product is declared, presented or offered as conforming to the single size designations in sub-section 1.6 - other than "Blend of Sizes" or "Assorted Sizes" - the sample unit shall conform to the diameter specified for each single size, except that not more than 25 percent, by count, of all the units in the container may belong to adjacent size group(s).

1.6.2.2 Any sample unit or container that exceeds the 25 percent allowance in the foregoing sub-section 1.6.2.1 will be considered a "defective" for Size Classification.

1.6.2.3 A lot will be considered as meeting the criteria for a "single size" designation when the number of defectives, as defined in sub-section 1.6.2.2 does not exceed the acceptance number (c) of the appropriate sampling plan in the Joint FAO/WHO Codex Alimentarius Sampling Plans for Prepackaged Foods (AQL-6.5) (CAC/RM 42-1969), (see Codex Alimentarius Volume 13).

2. ESSENTIAL COMPOSITION AND QUALITY FACTORS

2.1 Basic Ingredients

Asparagus and liquid packing medium appropriate to the product and other ingredients as follows:

2.1.1 Other permitted ingredients

2.1.1.1 Salt, vinegar.

2.1.1.2 Sucrose, invert sugar syrup, dextrose, glucose syrup, dried glucose syrup.

2.1.1.3 Butter or other edible animal or vegetable fats or oils. If the butter is added, it must amount to not less than 3% of the final product.

2.1.1.4 Starches - natural (native), physically or enzymatically modified - only when butter or other edible animal or vegetable fats or oils are ingredients.

2.2 Quality Criteria

2.2.1 Colour

The colour of the product shall be normal for the colour type.

2.2.2 Packing medium

The liquid packing medium shall be practically clear except as it may be affected by other ingredients and only a small amount of sediment or parts of asparagus may be present.

2.2.3 Flavour

Canned asparagus shall have a normal flavour and odour free from flavours or odours foreign to the product.

Canned asparagus with special ingredients shall have the flavour characteristic of that imparted by the asparagus and the other substances used.

2.2.4 Texture

The asparagus units shall be reasonably free from units that are excessively fibrous or tough.

2.2.5 Defects and Allowances

Limitations

- | | |
|---|--|
| (a) Shattered heads and other shattered asparagus material (consisting of broken or shattered pieces to the extent that the appearance of the product is seriously affected and includes pieces less than 1 cm in length) | The product shall be reasonably free from such material |
| (b) Extraneous matter (such as sand, grit, or earthy material) | The product shall be practically free from such material |
| (c) Units with peel (in Peeled Asparagus only) (those units with unpeeled areas which seriously affect the appearance or edibility of the unit) | 10%, by count |
| (d) Hollow units (consisting of units that are hollow to the extent that the appearance of the unit is seriously affected) | 10%, by count |

- | | |
|--|---------------|
| (e) Misshapen units (includes shoots or heads badly crooked or any unit that is seriously affected in appearance by doubles or other malformations) | 10%, by count |
| (f) Damaged units (includes discolouration, mechanical injury, disease, or damage by other means to the extent that the appearance or edibility of the unit is seriously affected) | 10%, by count |

Total of all defects in (d), (e), (f) for these styles:

Long shoots	15%, by count
Shoots	15%, by count
Tips	15%, by count
Cuts and Heads	20%, by count
Cuts	25%, by count

2.2.6 Classification of "defectives"

A container that fails to meet one or more of the applicable quality requirements, as set out in sub-sections 2.2.1 through 2.2.5, shall be considered a "defective".

2.2.7 Acceptance

A lot will be considered as meeting the applicable quality requirements referred to in sub-section 2.2.6, when the number of "defectives", as defined in sub-section 2.2.6, does not exceed the acceptance number (c) of the appropriate sampling plan in the Joint FAO/WHO Codex Alimentarius Sampling Plans for Prepackaged Foods (AQL-6.5) (CAC/RM 42-1969), (see Codex Alimentarius Volume 13).

3. FOOD ADDITIVES

	Maximum Level
3.1 Monosodium glutamate	Limited by GMP
3.2 Stannous chloride ²	25 mg/kg calculated as Sn
3.3 L-Ascorbic acid	Limited by GMP

² May be used only for asparagus in glass or in fully enamel-lined (lacquered) cans.

		Maximum Level
3.4	Acidifying Agents	
3.4.1	Acetic acid }	
3.4.2	Citric acid }	Limited by GMP
3.4.3	Malic acid }	
3.4.4	L-Tartaric acid }	
3.5	Vegetable gums	
3.5.1	Arabic gum }	
3.5.2	Carrageenan }	
3.5.3	Guar Gum }	
	}	
3.6	Pectins	
	}	
3.7	Alginates (Ca, K, Na, NH₄)	
	}	
3.7.1	Propylene glycol alginate }	
	}	
3.8	Modified Starches	} ³ 1% m/m of the additives specified
	}	under 3.5 to 3.8 inclusive, singly or
3.8.1	Acid-treated starches }	in combination.
3.8.2	Alkali-treated starches }	
3.8.3	Bleached starches }	
3.8.4	Distarch phosphate (sodium trimeta- phosphate treated) }	
3.8.5	Distarch phosphate, phosphated }	
3.8.6	Monostarch phosphate }	
3.8.7	Starch acetate }	
3.8.8	Starch hydroxypropyl }	
3.8.9	Distarch adipate acetylated }	
3.8.10	Distarch glycerol, hydroxypropyl }	
3.8.11	Oxidized starches }	
3.8.12	Distarch phosphate (phosphorous oxy- chloride treated) }	
3.8.13	Distarch phosphate, acetylated }	
3.8.14	Distarch glycerol, acetylated }	
3.8.15	Distarch glycerol }	
4.	CONTAMINANTS	
	Lead (Pb)	1 mg/kg
	Tin (Sn) in metal containers where tin is exposed	250 mg/kg calculated as total Sn

³ May be used only when butter or other edible animal or vegetable fats or oils are ingredients.

5. HYGIENE

5.1 It is recommended that the product covered by the provisions of this standard be prepared and handled in accordance with the appropriate sections of the Recommended International Code of Practice - General Principles of Food Hygiene (CAC/RCP 1-1969, Rev. 2 (1985) Codex Alimentarius Volume 1), and other Codes of Practice recommended by the Codex Alimentarius Commission which are relevant to this product.

5.2 To the extent possible in Good Manufacturing Practice, the product shall be free from objectionable matter.

5.3 When tested by appropriate methods of sampling and examination, the product:

- shall be free from microorganisms in amounts which may represent a hazard to health;
- shall be free from parasites which may represent a hazard to health; and
- shall not contain any substance originating from microorganisms in amounts which may represent a hazard to health.

5.4 The product shall have received a processing treatment sufficient to destroy all spores of *Clostridium botulinum*.

6. WEIGHTS AND MEASURES

6.1 Fill of Container

6.1.1 Minimum Fill

The container shall be well filled with asparagus and the product (including packing medium) shall occupy not less than 90% of the water capacity of the container. The water capacity of the container is the volume of distilled water at 20°C which the sealed container will hold when completely filled.

6.1.2 Classification of "Defective"

A container that fails to meet the requirements for minimum fill (90 percent container capacity) of sub-section 6.1.1 shall be considered a defective.

6.1.3 Acceptance

A lot will be considered as meeting the requirements of sub-section 6.1.1 when the number of "defectives", as defined in sub-section 6.1.2, does not exceed the acceptance number (c) of the appropriate sampling plan in the Joint FAO/WHO Codex Alimentarius Sampling Plans for Prepackaged Foods (AQL-6.5) (Ref. CAC/RM 42-1969), (see Codex Alimentarius Volume 13).

6.1.4 Minimum Drained Weight

6.1.4.1 The drained weight of the product shall not not less than the following percentages, calculated on the basis of the weight of distilled water at 20°C which the sealed container will hold when completely filled:

Peeled Asparagus

Long Shoots	60%
All other styles	58%

Unpeeled Asparagus

Long Shoots and Shoots	57%
All other styles	55%

6.1.4.2 The requirements for minimum drained weight shall be deemed to be complied with when the average drained weight of all containers examined is not less than the minimum required, provided that there is no unreasonable shortage in individual containers.

7. LABELLING

In addition to the requirements of the General Standard for the Labelling of Prepackaged Foods (Ref. CODEX STAN 1-1985, Rev. 1-1991, Codex Alimentarius Volume 1) the following specific provisions apply:

7.1 The Name of the Food

7.1.1 The name of the product shall be "Asparagus" and the word "peeled" or "unpeeled" shall be declared, as appropriate, if national legislation so requires.

7.1.2 The following, as appropriate, shall be included as part of the name or in close proximity to the name:

7.1.2.1 The style -

"Long Shoots" or "Long Spears";
"Shoots" or "Spears";
"Tips" or "Points";
"Cuts and heads" or "Cut Spears";
"Cuts".

7.1.2.2 If the product is produced in accordance with the other styles provision (sub-section 1.3), the label shall contain in close proximity to the name of the product such additional words or phrases that will avoid misleading or confusing the consumer.

7.1.2.3 The colour -

"White";
"White and Blue Tipped";
"White and Green Tipped";
"Green";
"Mixed Colours".

7.1.2.4 A declaration of any special sauce and/or seasoning which characterizes the product, e.g. "with X" or "In X", when appropriate. If the declaration is "With (or "In") Butter Sauce", the fat used shall only be butter fat.

7.2 **Optional Declarations**

7.2.1 **Size representation - in styles of Long Shoots, Shoots, Tips**

7.2.1.1 If these size names comply with the applicable requirements of this standard, they may be stated as "Small", "Medium", "Large", "Extra Large", "Blend of Sizes", or "Assorted Sizes", as appropriate.

7.2.1.2 The number of units present in the container may be shown by a range of approximate count, e.g. "approximately --- to --- Spears".

8. **METHODS OF ANALYSIS AND SAMPLING**

See Codex Alimentarius Volume 13.